

TUNBRIDGE WELLS:

OR, A

DIRECTORY

For the Drinking of

Those W A T E R S.

S H E W I N G,

- I. Their NATURE and VIRTUES.
- II. The DISEASES in which they are most Beneficial.
- III. The Time, Manner, and Order of Drinking them.
- IV. The Preparation of the Body required.
- V. The Diet proper to be used by all Mineral-Water-Drinkers.

By LEWIS ROUSE, M. D.

To which are Annexed, Two Tracts, viz.

- I. Mr. BOYLE'S Observations upon TUNBRIDGE and other Mineral-WATERS.
- II. A Physico-Mechanical Dissertation upon WATER, in General, proving it to be the best *Specifick* for the Cure of all DISEASES. With a particular Account of the Virtues of the German Waters.

Made *English* from the *Latin* Original.

Medical-Waters, are the *Specificks*, which Nature hath prepared by her *Chymistry*; or rather the God of Nature hath bountifully bestowed on Mankind for their Relief and Comfort.

Simpson's Hydrol. Ess.

The Grand Preservative of Life, is Water;
All Liquors, to Mankind, besides, are Slaughter.

L O N D O N:

Printed for J. ROBERTS at the Oxford-Arms in Warwick-Lane. 1725. (Price 1 s. 6 d.)

TUNNING WILLS:

DIRECTORY

of the City and County of

THE WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS

WATERS





T O
Dr. CHEYNE
A T
B A T H.

HONOURED *SIR*,



have now been a *Peri-*
patetick of this Place,
Tunbridge Wells, up-
wards of Sixty Years,
and may, I hope, there-
fore be presumed to know some-
thing

thing of the Operation of these *Waters*. The few, and, I may add, certain Observations which I have made thereupon, are, with all due Deference, herewith submitted to your Judgment.

From the excellent Account you have given of the *Bath-Waters**, I thought myself obliged to offer these Pages to your Perusal; and not doubting of the same Candour which, in all your Writings, you shew to others, (tho' otherwise unknown to you) I have assumed the Liberty of subscribing myself,

S I R,

Your most Obedient,

Southborow, near
Tunbridge-Wells,
Sept. 2, 1724.

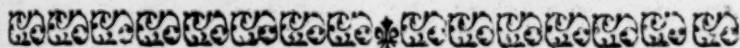
Humble Servant,

L. ROUSE.

* See *Treatise on the Gout*.



TUNBRIDGE WELLS.



C H A P. I.

The Nature and Virtues of those Waters.



THESE, Two small, *Medicinal-Springs* lie contiguous, and rise at about five Miles distance, Southward, from the Town of *Tunbridge* in *Kent*, Thirty Five Miles from *London*. They are situate in a Valley encompassed with Rocky Cliffs; and so barren, that Heath and Brakes are its only Product.

a

The

The Taste of the *Water* is not unpleasant, tho' it be very strong of the *Iron-Mineral*. It purges by Stool, Vomit, and Urine, tho' its chief Purgation is by the latter.*

All Metals have their peculiar Salts, and *Iron* in particular hath a great deal of volatile Salt, and is of an astringent and corroborating Faculty, and hath an opening Virtue withal, as may be seen by the Powder of Steel, being only a defecated Iron, which is used with good Success in the Green-Sickness, and in all other Diseases proceeding from Obstructions. But here, by some perhaps, I shall be charged with Self-contradiction, in asserting that Iron is both of an astringent and opening Quality, which the vulgar take to be two Qualities incompatible in one Subject, and yet they are deceived, for to open, and corroborate, have no such repugnance but that they are found together in many simples.

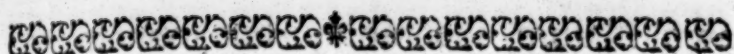
Now

* See *Dr. Simpson's Hydrological-Essays*, 8vo. Lond. 1670. pag. 129.

Now concerning the *two* Springs, a Question doth often arise amongst those who drink these Waters, *which* of them should be the better and stronger, but being so contiguous and near together, there cannot certainly be any manifest odds betwixt them. I have often tasted of *both*, immediately one after the other, but did not find any perceptible difference, yet I will not deny but it may so fall out, that at some times the *one* may be somewhat stronger than the *other*, according as the Water may participate more of the Virtue of the Minerals at one time than at another; but I think that there can be nothing constant in it, tho' they may alternatively in some respects differ one from another. Thus much concerning the *Nature* of these Springs. It followeth now, that we make an enumeration of the chiefest Diseases their Waters may be used for, wherein we will chiefly follow Experience, and yet so as not to exclude Reason. For tho' it be an *empirical* Remedy, yet we should not use it altogether *empirically*, nor make it an
a 2 universal

universal Medicine for all Diseases, and send thither promiscuously all sorts of Patients, as some Physicians do to other Mineral Springs, when they are at a *non plus* with them, and after a long time cannot do them any Service in Chronical Distempers, then they send them to these Places; such a Proceedure brings all Medicinal Waters into a disrepute, and depreciates the Credit they justly deserve; the Publick ever judging of things by the Event: Not considering, that some miscarry after Drinking them, either because they were too far spent before such a Prescription, or by Reason that their Diseases were not to be cured by such a Remedy.





C H A P. II.

*The chiefest Diseases, against which
Tunbridge-Waters may be used
with good Success.*

TO cut off all Circumlocution upon this Topick, the principal Distempers to be relieved by these Waters are all kinds of Obstructions, which are the Causes of infinite Diseases.

These Waters effectually open all manner of Impediments, especially the Obstructions either of the Spleen, or Liver, better than any other Physick whatsoever. These Obstructions being so stubborn, and require so much Physick to remove them, the taking of which is both loathsome and expensive, that People generally grow tired of such a *Regimen*, before they have gone a Quarter thro' it; and that is the Reason why so many are afflicted with Chronical, lingering,

gering, Diseases, which are not in their own Nature incurable, but remain so, either because the Patient is not able or willing to undergo such a Course of Physick as will effect the Cure, or because some are so penurious, that it is a more eligible Choice with them to part with their Lives than their Money.

But to apply even to such Persons, these Waters bring no Charges, and after one has been used a little while to them, the taking of them is not in the least troublesome, but the longer they are drank, the more one may drink of them, and being taken in a large Quantity they effectually open all obstructed Passages. Wherefore they are of excellent Use for all Diseases which have their dependency upon Obstructions, as all long and tedious Agues, Quartans, and the like; for a Dropsy, the Black and Yellow Jaundice, the *Schirrus Lienis*, or hard Swelling of the Spleen, which the common People call an Ague-Cake, the Scurvy, the Green-Sickness, the Whites in Women, and the Defect and

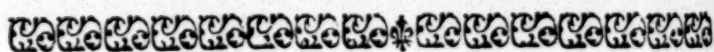
and Excess of their Courses. Now although this last Assertion may seem to carry some Repugnancy, in that we ascribe two contrary Effects to one and the same Agent, yet there is no such Matter, for the one is done by opening of Obstructions, and the other either by cooling the Blood, when it is too hot and sharp, and so provoketh Nature to Expulsion, or by corroborating or strengthening the retentive Faculty. And it is the Property of all equivocal Agents to vary their Operations according to the Variety of their Objects, and of the Matter they work upon. This Water doth also cut and extenuate tough, clammy Flegm, and, in that Regard, it may be much available for those who are troubled with the Cholick. It scoureth and cleanseth all the Urinary Passages, and therefore is good against the Gravel, and the Stone in the Kidnies, or Bladder, where, also, it dissolveth and washeth away a kind of clammy, flegmatick Excrement bred in the Bladder, which sometimes stopping the Urinary Passage,

Passage, causeth a Belief that it is the Stone, when the Grievance is only what we have recited.

This *Water* is peculiarly remarkable in Regard of the astringent, healing Faculty it hath in all inward Ulcers, and especially for those of the Kidnies and Bladder, and of the *Musculus Splinatus*, which openeth and shutteth the same, and in Confirmation thereof, divers have been cured of a bloody Urine, which had long afflicted them. It is likewise good against all *Dysenteries*, or Bloody Fluxes, and all other Fluxes of the Belly. It also extinguisheth all inward Inflammations and hot Distempers, notwithstanding which, the Stomach is not in the least hurt by the actual Coldness thereof, but rather corroborated or strengthened, and Appetite provoked, in some, even to too great a Degree, but way must not be given to it; for in such a Case, more Hurt may be received by the Excess of Appetite, than Benefit gained by drinking the Waters. The Nerves, or
Sinews,

this

this Water helpeth sore Eyes, red Pimples, and other external Infirmities. Other Diseases, which have Affinity with these we have mentioned, it may be used for, but I will content myself with what I have enumerated, and proceed to the Time, Manner, and Order of drinking the Waters. yet must I not forget, in the Behalf of the Ladies, to acquaint them that there is not any thing better against Barrenness, and to make them fruitful, if other proper Means, such as the several Causes shall require, be joined with these Waters.



C H A P. III.

The Time, Manner, and Order of drinking Tunbridge-Water.

AS to the Time of the Year for drinking them, the Summer Season is the most proper, especially from *June till Michaelmas.* And according

ing as the Year proveth, one may begin sooner and end later; for whensoever the Weather is clear and dry the Water is then best, as well in Winter as in Summer, and in hard frosty Weather it is commonly strongest, the *Antiperistasis*, or surrounding of the Air, hindering that there is not so great an Evaporation of the Mineral Spirits of the Water; for in rainy Weather it loseth much of its Virtue.

About an Hour after Sun rising is the best Time of the Day for drinking these Waters; for when the Sun beginneth to be of Force, it attracts the Mineral Spirits, and the Water loseth some of its Strength; besides, the Morning is the best Time for walking.

The Quantity proposed, should be drank within as small a Space of Time as possible, without oppressing the Stomach too much, as within an Hour, or less.

Those that do not lodge at too great a Distance from the Wells, and are able, had much better walk to them

b 2

than

than ride, because by walking their Bodies will be warmer: Not that I intend they should be so hot as to sweat, or near it, for such a Heat would be hurtful, but I mean only that their natural Heat should be somewhat awaked and excited, because then the Water will be the better attracted, and have the more speedy Passage.

After every Glass, or every Two or Three Glasses, according as one is able to take it, it will be good to chew a few *Carraway* Comfits, or *Coriander* Seed, some *Galingal*, *Zedoar*, *Elicampane*, *Angelica* Root, or such like, to help the Digestion and Passage of the Waters. Some Constitutions require *Electuary*, or *Lozenges*, appropriated to the Indisposition for which they drink them.

Many Gentlement smoke Tobacco, which is not improper, especially if they hold it a good while in their Mouths before they puff it out. Moderate walking is very available, but I utterly disapprove of any violent Exercise, as
running,

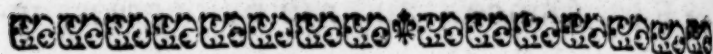
running, leaping, jumping, which some will in Wantonneſs do. For ſuch kind of Exerciſe is rather a Hindrance than a Help to the digeſting* of their Water, and very often brings it up again, weakening by that Means their Stomach, which in vomiting doth always ſuffer, unleſs it be foul, and then ſuch a Purgation is helpful. After drinking the Quantity preſcribed, walking, and giving into the Diverſions of the Place is very neceſſary, for thoſe who expect to reap any Benefit by *Tunbridge Waters*, muſt be of a chearful Diſpoſition, and baniſh all melancholy Cogitations.

I adviſe all *Water-Drinkers*, in returning to their Lodgings, rather to ride than to walk, becauſe by the Motion of the Horſe, the inward Parts, and Stomach itſelf, are thereby borne up and contracted, and ſo conſequently the Water will be the better digeſted. The Sign of a thorough Concoction of the Waters is commonly when one's Urine beginneth to be tinctured and coloured. As the Morning is the moſt proper, ſo
ſhould

should they not be drank at any other Time of the Day. Those who have unseasonably tried Practices by drinking them soon after Dinner, or later in the Afternoon, in the first Place, prevent the Digestion of their Food, and secondly, the *Water*, forcing to make way for itself, draws with it the *Chyle* raw and unconcocted, which causes Crudities and Obstructions, and thereby renders it rather detrimental than beneficial to the Patient. Once a Day therefore is enough; as for the Quantity to be drank in one Morning, it is a thing which cannot justly be defined, in regard of the difference of Bodies in Age, Sex, Strength, and other Circumstances: But generally those who are able to drink most, receive the most benefit, if they digest and void their *Water* well. It frequently makes the *Water-Dippers* laugh, to see some Patients sent thither by ignorant Physicians, and appointed to take Ten or Twelve Ounces of Water, and proceed to Twenty or Thirty Ounces. But it may be a Rule for any one of competent Years
and

and Strength, to begin at Thirty, Forty, or Fifty Ounces, and rise by degrees, increasing their Quantity every day to an Hundred, an Hundred and Fifty, or Two Hundred Ounces more or less, as they shall be able, and so again to decrease by degrees, ending where they began when they leave the *Wells*.

As for the Time of any one's Residence there, it is what cannot be fixed; for in some Diseases, a few Weeks will do, in others several Months will not suffice; nay in some Cases, it may be requisite for the Patient to resort thither Two or Three Years. What is here said, will I hope be a sufficient Direction as to the Time, Manner, and Order of drinking these *Waters*. I shall now proceed to the Preparation of the Body of such as are to drink them.



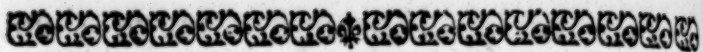
C H A P. IV.

*Of the Preparation of the Body of
such as are to Drink Tunbridge-
Water.*

HAVING recited the chiefest Diseases, which may be cured by this *Water*, I would not be so understood, as tho' I meant that the *Water* alone, without any other *helps*, were sufficient. For, as I have before observed, tho' it be an *empirical* Remedy, yet ought it to be used with Reason, Discretion, and Circumspection, otherwise *hurt*, rather than *good* will follow the Use of it. Many have fallen into Fevers and Agues, by coming unadvisedly and unprepared to these *Waters*, tho' nothing is more assistant, to such Maladies, than they are, if rightly used, the Body being first prepared and purged. Wherefore those who regard their Health, must before they
drink

drink the *Waters*, if they have not a very pure Body, thoroughly purge themselves to prevent all Inconveniencies.

Now according as Bodies differ in Sex, Age, Temperature, Qualities of the peccant Humour, and other Circumstances, so must they accordingly be prepared and purged. In order to which, every Patient should consult with such a Physician as is well acquainted with the Nature of these Waters. It will be best for those who live remote from the *Wells* to take their Preparation-Physick upon the Spot, because if they enter into such a Regimen at a distance, and travel thereupon, the Consequences may prove dangerous. Neither is it sufficient to prepare the Body and take Physick before drinking the *Waters*, but in several Diseases, to take something now and then during the Course, to help the working of them, and thereby cause a happy and prosperous Event. I come next to the *Diet* requisite to be observed.



C H A P. V.

*Of the Diet to be observed by those
who Drink Tunbridge-Water.*

DIET with the Physicians is taken in a larger Extent than it is with the vulgar; for besides Meat and Drink, they include Air, Motion, and Quiet; Things Retained and Voided, Sleeping and Watching, and the Passions of the Mind. All these must be rightly ordered, both to preserve and to restore Health.

I. As for the Air of *Tunbridge Wells*, it is not to be excepted against, it being pure and wholesome enough.

II. Of Motion and Quiet, I took notice when I before mentioned the Exercise proper to be used. As I did likewise of,

III. The Passions of the Mind, when I observed the Tranquillity every Pa-

tient

patient ought to be in, and that all melancholy Impressions should be banished.

IV. Concerning Sleeping and Watching, a Moderation must be regarded therein, tho' it is better to sleep somewhat too much, than to watch too long; therefore it is best both to sup and go to Bed betimes, that the First, Second, and Third Concoction may be ended before you drink the *Waters*.

V. As for Things Voided and Retained, the Patient must endeavour to have the Benefit of Nature by all manner of ordinary Evacuations, as by Stool, Urine, and Sneezing.

I shall now go on to Food.

VI. As Bread is the chiefeſt Part, here eſpecially it ſhould be made of pure Wheat, well kneaded and ſeaſoned in the making, and well baked; for the ill Humours which proceed from eating ill Bread are worſe than thoſe which proceed from Meat. Ravel Bread is wholeſomer than Manchet, and not ſo apt to breed Obſtructions, having ſome

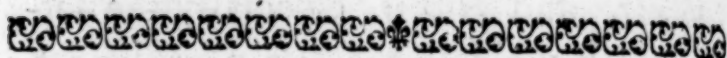
of the Bran left in it, is detergent, and maketh it pass the better.

VII. As for Meat, every one may feed upon that which they have been most used to; but let them refrain from those Sauces which have much Butter, or Spices in them. Plain eating is best, and one Dish at a Meal sufficient; a moderate, sober Diet ought always to be preferred, but especially here.

VIII. As for the kinds of Meat, tho' Pork and Veal are chiefly commended, yet here, in regard of their Moisture, I prefer Mutton before them. Not only Pork, but Pig, Lamb, and such like flashy Meat ought to be avoided. Good Beef, well fed, and of an indifferent Age, may be eaten without Scruple. If Oxen indeed be killed when they are so old, that they are past Labour, their Flesh cannot be wholesome, nor is it to be commended; but for our good succulent Beef it is extremely nourishing. Besides *Mutton* and *Beef*, the Patient may eat *Capons*, *Hens*, *Pullets*, *Chickens*, *Pidgeons*, *Partridges*, *Pheasants*, *Black-Birds*,

Birds, and other *small Birds*, also *Rabbits*, and *Hares*, especially the latter, which yieldeth the best nourishment. All *Water-Fowl* should be abstained from. Concerning *Fish*, tho' it be for the most part unwholesome, and apt to breed slimy Humours, yet for a change, sometimes may be eaten River-Fish that is firm and not slimy, as *Trouts*, *Gudgeons*, *Pikes*, *Perches*, and the like, either broiled, or boiled in Wine, rather than Water, and corrected with *Fennel*, *Spear-Mint*, *Thyme*, *Rosemary*, or *Parsley*. But for *Mint* in particular, let the Ladies refrain it, because it hindereth *Conception*. At your Fruit, you may use some Raisins of the Sun, a bit of Marmalade, a roasted Warden or Pippin with Carraways or the like, but in all this you must be sparing.

CONCLU-



CONCLUSION.

HAVING thus briefly run through the chiefest Things needful to be known and practised by such as shall desire to use these *Waters*, I will here conclude with an Exhortation to them to be well advised concerning the Nature of their Diseases before they come, and when they are arrived, to observe the Rules and Directions herein laid down, as also to be constant in the Use of the *Waters*; for tho' some have found little or no Benefit by drinking them at first, yet have they, at the end of a *second Season*, returned home perfectly cured.

Lastly, let me repeat what I have before observed relating to Diet, that a Variety of Dishes be avoided. For the Nature of several Meats being different, and frequently clean opposite and

contrary

contrary one to another, and some sooner concocted, and others later, from whence those Evils will arise, against which you come to seek Relief from the *Waters*; as Crudities, Gripings, Obstructions, Pains in the Back, Rawness of the *Chyle*, and consequently of the Blood. These Inconveniencies, by a sober and moderate Diet, may be prevented. As to Drink, good ordinary clear Beer, of an indifferent Strength, is best. Yet if those who have been used to drink Wine at Meals desire to be indulged in that Custom, I am not against it, provided they are not of too hot a Constitution, and have no principal Part offended through Excess of Heat; for a Glass of Wine, or Two, at Meals, I freely acknowledge very much helpeth Digestion. For this Purpose, Canary or Claret are better than White-Wine, because White-Wine, by its Diuretical Faculty, passeth too soon away, and before the *Chyle* is thoroughly perfected, by which means it may carry some of the *Chyle* raw and unconcocted with it, and consequently
breed

breed Crudities and *Obstructions*, as before-mentioned.

And now, with the Assistance of this *small Directory*, I heartily wish that all Persons, who resort to these Springs, may either find a Restoration of their lost Health, or a Confirmation of that which they at present enjoy.

à Calo Salus.

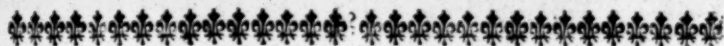


APPEN.

9 S
tal H
60, 6
99, 1



APPENDIX.



Mr. *B O Y L E*'s
OBSERVATIONS
UPON THE
Tunbridge-Waters.



Naturalist, *the justly celebrated Ornament of this our Country, to the Publick, upon the present Subject, hath thus declared himself, viz.* § Divers
d Ob-

§ See Boyle's *Short Memoirs for the Natural Experimental History of Mineral-Waters*, 8vo. 1684. pag. 12, 38, 60, 61, 64, 65, 66, 70, 71, 74, 76, 77, 78, 94, 95, 99, 113, and 114.

Observations have perswaded me, that Physicians ought to consider very well both the Nature of the Waters they ordain, and to what Persons, for what Diseases, and in what Manner they prescribe the Use of them; for though many look upon them as such innocent Medicines, as, if they do no good, can at least do no harm, yet the Effects, that have too often ensued the unskilful Use of them, especially when it was long continued, allow me not to look upon the drinking of Mineral Waters as a slight Thing, that may be safely plaid with, but as that whereby we have seen, as very much Good, so a great deal of Mischief done, especially some Time after the Operation is thought to be quite over, and perhaps almost forgotten.

It is usually observed, in Martial Waters, such as those of *Tunbridge*, that the gross Excrements of the lower Belly are blackened, by a Commixture of their Mettalline Parts; but particularly I have observed, that after the drinking

drinking of larger Doses of them, the Root of the Tongue, and perhaps some neighbouring Parts, would also acquire a dark Colour, by the Operation of the transient Liquor.

For the Sake of Water-Drinkers, I cast about in my Thoughts for some way that might be of *some Use*, tho' of *no Certainty*, in examining a Mineral Water, suspected to contain Arsenic. To which Purpose, I pitched upon Vitriolate Bodies, and found that if a little Solution of *Dantzick* Vitriol were put to a convenient Quantity of Arsenical Liquor, there would presently ensue a great Change of Colour, and a dark Substance* would by Degrees precipitate itself and settle in the lower Part of the Glass. The like Effect we found when we put *English* Vitriol, which (having no Copper added in the making, as that of *Dantzick* has,) is either altogether, or almost totally Martial, into a considerable Proportion of the Arsenical Solution

The Knowledge of the Specifick Gravity of a Mineral Water, may be of great Use to him that endeavours to discover its Nature.----- And *tho'* it may seem a Paradox, that a Water, impregnated with a Metalline, or Mineral Substance, should be as light, or even lighter, than common Water, yet upon Tryal carefully made, I have found some Mineral Waters, as particularly that of *Tunbridge*, well taken up, to be lighter than common Water, even purified by Distillation.----- As divers Mineral Waters that contain Salts in them, are considerably heavier than common Water, so some, especially Feruginous Waters, are impregnated with so fine a Substance, as to be lighter than common Water.

The Odours of Mineral Waters are best judged of at the Spring Head, whence being removed, scarce afford any Odour at all. Perhaps the sulphurous Scent, that is sometimes perceived in *Tunbridge*, and some other Waters in their Sources, may in part proceed from loose

loose Exhalations that casually happen to be mingled with the Waters, but do not constantly belong to it.

Many Persons that drink Mineral Waters, cannot well, either for want of Strength or Conveniency, repair immediately to the Spring-Head, but are obliged to drink them in their Lodgings, and perhaps to have them transported to a great distance, or even to another Country. In such Ferruginous Waters as are lighter than common Waters, (*viz. Tunbridge*) I found a manifest difference in reference to Transportation: For most of them, even such as will bear removing, have something of Freshness and Quickness at the Spring-Head, that they have not any where else. ----- The exact or negligent closing of the Vessels, wherein such Waters are Transported, is a Circumstance of great Moment.

Ferruginous Waters, that are not heavier than common Water, and in most Drinkers prove but diuretick, afford but very little *Caput Mortuum*, or dry Substance, upon the total Evaporation

poration of the Liquor, whereas Mineral Waters, that are purging, and manifestly more ponderous *in Specie* than common Water, leave, upon Evaporation, a considerable Quantity of Residue, tho' some far less than others. At once to explain, and partly prove what I have been saying, from a Pound of *Barnet* Water, (which is known to be purgative) slowly evaporated, we obtained a Dram of white Powder, but from the like Quantity of *Tunbridge* Water, we obtained but one Grain of *Caput Mortuum*.

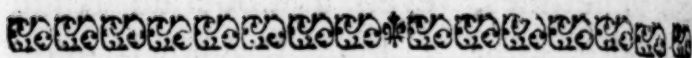
If a Mineral Water, as that of *Tunbridge*, &c. be impregnated with Spirituous and Volatile Exhalations, it is not hard to conceive that they may easily lose their chief Virtue, by the Avolation of most or many of their fugitive Parts, upon their being removed to a Distance from the Spring-Head.

The Fall of Rains makes Men doubt whether Ferruginous Water, such as that of *Tunbridge*, be not so much diluted as to be spoiled in its Medicinal Capacity.

capacity. Usually a small Rain does little or no Harm to the Medicinal Spring, and sometimes, even a moderate Rain, especially after a long Drought, may, instead of weakening it, increase its Virtue, by washing down into its Channel some Salts, that, during the dry Weather, were concreted in the Pores of the Ground, and perhaps also by heightning the Water in the Channel, so as to dissolve some Salts concreted there, which it could not reach before.



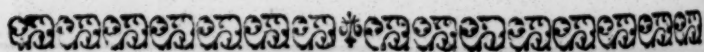
Adver-



Advertisement.

I Have not any Concern
in the following DIS-
SERTATION, but am obli-
ged to the Translator for
permitting it to be sub-
joined to my imperfect
Sketch; and look upon it
as a very useful Piece.

L. ROUSE.



A Physico.



A Physico-Mechanical
 DISSERTATION
 Concerning
 WATER.

I.



O one, we suppose, is ignorant, that hath studied *Physick*, tho' of no extraordinary Genius, how universally *that Physick* has been desired, which, by its own particular Virtue, can cure all Distempers. Truly if any Physician should be so fortunate

B

tunate in his Studies, as to find such
an universal Remedy, for the Succour
 of the Distressed, he should be esteem'd
 a God; but since there is no such Sort
 of Medicine yet known, which always
 can certainly cure but even one Distem-
 per, methinks there is but little Hopes
 of such a Proficiency, as to be able to
 drive away all Distempers in general.
 For truly, if we consider the Nature
 of Subjects how different, the Causes
 of Diseases how various, and oftentimes
 contrary, and also the Virtues of Re-
 medies e'ry now and then varying, ac-
 cording to the Nature of Bodies, we'd
 not busy ourselves any longer in the
 Search of an universal Medicine. But
 however, if Medicine is given in the uni-
 versal Nature of Things, and such as may
 deserve to be call'd, or esteem'd, universal-
 ly Medicinal, truly, in our Judgment, 'tis
 no other than *common Water*; in as
 much as, without the Use of it, we can't
 continue lively and healthy: Because it
 both defends the Body from all Diseases
 in general, and preserves it healthy, hin-
 dering

dering all Corruption, the greatest Enemy to Life. Moreover, the *Use* of *Water* answers all Indications in Curing, infomuch that without it, no Disease either Chronick, or Acute, can happily be cured. But for the Confirmation of this our Opinion, we mean not in this Place to speak of the wholesome Fountains, hot and cold, promiscuously, and vindicate their Virtues; but of *common, pure, and the best Water*, whose universal Use we design, by God's Assistance, to praise and recommend in this Dissertation.

II.

Since therefore our Design is to treat of *Water* universally Medicinal in curing, and preventing Diseases, and to prove it by the strongest Arguments, we think 'twill not be foreign to our Purpose if we first premise a few things concerning the natural Necessity of the Corruption of our Body, that afterwards it may the more clearly appear what

Diseases are curable, and what are not. As to the first, *viz.* the natural Necessity of Dying: 'Tis very well known, that the Continuance of our Body, and the Hindrance of Corruption (whereto of itself 'tis very prone) depends subject on a continued and uninterrupted Course of the Blood and Humours; for as long as this is safe and undisturb'd, so long the Body may be said to be in health: But as this fails by degrees, nothing is nigher than Death. 'Tis this Motion, therefore, which only preserves the Body from Corruption, because it alone hinders its standing still, which is the Cause and Foundation of all Corruption, from the Heterogeneous Particles in the Fluids, Parts of whose Nature are in all Animals.

III.

Our Body would last for ever if it were possible to preserve the Circulation of the Blood to be equal and continual; but since human Infirmary, and Mankind's miserable Condition can't allow it, methinks

'tis

'tis worth our while to inquire into the Causes of this Defect, and in our Opinion they are these: The Vital Circulation of Humours is perform'd in Organs and Ducts; the Elastick Fibres of the Muscles cause it by their successive and reciprocal Dilatation and Contraction: These are Vessels some of a larger Capacity than others. If at any Time therefore the Elater and Impulse of the Fibres is so diminish'd that it no longer answers the Proportion of Humours necessary to Motion, and these not able to flow thro' the least Tubuli readily and freely, 'tis really impossible but there should arise Stagnations of the Humours in the Capillary Vessels, and thereby Corruptions, the Forerunners of Diseases and Death. But as in all Machines the Elaters and moving Faculties of Bodies at length are weaken'd by the change of the Mass, whereof they are coagmentated, so even it is with our Bodies, whose Fibres, which only perform Motion, in Process of Time grow thick, and become too hard,

hard, solid, and dry. For which reason they not only are the more difficultly mov'd, but also the Pores and Passages being made narrower, hinder the Fluids from circulating thro' them with so free and equal a Course. The Truth whereof the Flesh of aged Animals sufficiently proves, which, because of its Hardness and Solidity, requires far greater Heat and longer boyling, to make it tender, than that which is young. From whence we may see, there's no Question but if the same State, and the same Motion of the Fibres and Vessels, and the same Apertion of the Pores could always be preserv'd, our Body would ever live, unless some external violent Cause befall it. But that this can be done either by Physick or Choice of Food, those who know the Virue of Naturals can't conceive. But 'tis very true that many People arrive not at that Term of Life, which the Constitution of Body and Temperature, given by Nature, promises, as the Laws and Rules, whereby the Body may arrive
at

at its natural Term, they're either ignorant or despise it. Wherefore the greatest Part of Mankind either thro' immoderate Desires, Intemperance in Diet, or by not regarding what Things are wholesome and what unwholesome, either shorten their Life or make it miserable.

IV.

The internal and natural Cause and Original of our Death being unfolded and clearly manifested, I think it will not be amiss to shew briefly why some Diseases are incurable. For both sound Reason, and the very Laws of Motion sufficiently demonstrate, that a Proportion is granted between the Agent and Patient, and the Effect requires an adequate Cause. But when very stubborn Obstructions of the Vessels happen, and Indurations of the Bowels, and finally, great Effusions of the Humours into the Cavity, and from thence fresh Corruptions, who can find the Force of Physick

sick sufficient to dissipate these Ills? Or who can stop, with a proper Remedy, the deep and internal Inflammations of the nobler Parts, and the Exulcerations thence arising? Lastly, who is able to calm the vehement and inveterate Com-motions of the *Genus Nervosum*? If any Man could e'er do this by the Ap-plication of any Sort of our known Re-medies, I would not esteem him an *Æsculapius*, but as one born for the Good and Benefit of Mankind, being fully persuaded no one would ever die of acute Diseases under his Hands.

V.

But we must likewise observe, whe-ther there are any such Remedies in Na-ture, as are certainly capable to cure all Diseases; it is well known some Specificks are highly commended as useful to the vanquishing certain Distempers. As *Chi-na China* is accounted a sure and safe An-tefebrifick; *Argent Vive* (Quick-Silver) is wonderfully commended against a viru-
lent

lent Pox ; *Opium* is said to be the best Anodine ; *Mars* the Hypochondriack-Patients comfort ; *Sulphur* the best Pectoral ; *Castor* most beneficial to the Nerves ; *Bitters* for Cachectick and Dropfical Persons are look'd upon to be the best Physick ; *Nitre* is the most useful in extinguishing of Ebrile Heat : But tho' these famous Remedies may be commended, yet he that hath practised but a little while will readily judge such Helps will by no means suffice to cure these Distempers. For who does not know that almost all Diseases are fomented by different, and often contrary Causes ? Or who does not find Diseases creeping on under different Symptoms, sometimes with greater Danger, sometimes with lesser ? Who does not sufficiently experience how different the Dispositions of Bodies are, whereon Remedies act ? From whence there necessarily follow different, and often contrary Effects from one and the same Remedy, apply'd according to the different Nature of Bodies. For what is

justly to be observ'd, Remedies act not only according to their Activity, but also (if I may so say) according to their Receptivity: *i. e.* The Force of Remedies proceed from the mechanick, mutual, and reciprocal Action on itself, and Re-action of our Bodies and Medicaments. From whence one may see how wickedly bold they attempt their Cures, who without any Regard had of the different Patients, morbifick Causes, or other Circumstances, use always one Remedy and one Method for the same Disease. 'Tis what Quacks and Empyricks are wont to do, to the great Advantage of the Funeral Undertakers. For he that knows all these Essentials to Curing, does not apply one Kind of Physick to all Persons, labouring under the same Distemper.

VI.

It now remains that we explain in what Sense and Meaning Water may be said to be universally Medicinal. But
we

we affirm Water to be most convenient to all Natures and Seasons; moreover, that there is not a more noble Preservative to be found against Diseases: Besides, it gives certain Help both in acute and chronick Distempers, and lastly, that its Use answers all Indications, either preservatory or curatory. But since there is a very great Difference in Water, we must observe, what Waters are accommodated to this Design of the Physician. For we can't deny but that the Nature and Virtues of Waters are very different in themselves, as Water Drinkers can readily find by their Taste; neither do we learn the Difference of Waters better than by examining them by various Chymical Experiments, as weighing, distilling, or variously mixing them. We must not think Water is so Homogenious a Liquor, as at first View it appears to be, but that it is filled with Particles of a different Nature, as there are many Ways to prove it. For First, All Water imbodyes itself with an Aërio-Ætherial Fluid, in-

somuch that the Elastick Power of Waters seems intirely to depend upon it. For we know the Waters are expanded, and that they take up the greatest space; and that the same are contracted, and collected into a narrower Compass, according to the larger Admission of Air or Æther into the Waters, or to the Expression made again thro' its Pores; a positive Proof of this we find in the Thermometer, where the included Liquid fills up a larger or lesser Space, according to the different Degrees, or Admission of Heat and Cold. For, such is the Nature of all Liquids, that at the Approach of Heat they are wont more freely to admit the Ætherial Fluid, which also they leave again at the Approach of Cold: As some Years ago we experienced in a very cold Winter. But the Quantity of Air and Æther in Waters may best be known by a Wind or Air Pump, when the more subtile Waters afford plenty of Bubbles on their Surface, more especially if they have been a little warmed, they will rise over the

Mouth

Mouth of the Glass, wherein they were before contained; whereas on the contrary, the thicker and heavier the Waters are, there is observ'd a smaller Quantity of those Bubbles.

VII.

Moreover, Water is found to consist of lighter and heavier Parts, the lighter, more apt to Motion, easily ascend, and by Heat are elevated in Distillation or Evaporation. But the heavier or grosser Particles require the greater Heat. As we observe in boiling, the subtler Parts fly away and the crude and useless subside, as the nicer Drinkers of the expressed Juice of *Turkish* Lupines, which they call *Coffee*, well know; who as often as they put the roasted bruised Berries into Water pretty well boyled, they find the Savour less grateful. It is likewise observed, that some Waters in Distillation mount the Alembick quicker than others. Waters also differ very much in Weight, as a Statick Instrument shows some heavy
and

and some light. Those filled with earthy and saline Particles far exceed the pure in Weight; but Rain-Water, as more tenuous and pure, is the lightest of all. But there is no way to prove Water's Purity, and the Heterogeneous Matters they contain, better than by Distillation, which shews you not only the Quantity, but likewise the Nature of its Contents. It is strange to see what a Mass of Earth, or stony matter Waters leave behind them when distilled. A Physician tried an Experiment, and out of a Glass Cucurbit distilled Fountain Water till all was dry, adding two Pints, and repeating them ten Times in the same Vessel, and by this Operation got a large, firm, and hard stony Crust, whereon the Knife had no Power. Many Waters contain a Chalky Earth, others a Clayish and Ironish yellow Mass, others a Stony Substance. Those which are of a Martial Nature are known by their astringent Savour and yellow Sediment, which the Spring by its bubbling lays and leaves on all sides of it. There are many others likewise,
amongst

amongst which our *Hallenses* (German Waters) are to be numbered, which partake of common Salt, which is perceived by the taste after boyling. But the Mixture of the Heterogeneous Particles, and their Impurities, which Waters contains, are better found out by some Chymical experiments. Under which Name we very much recommend two, we commonly have made use of, which eminently discover the Purity and Impurity of Waters: The First is the *Oyl of Tartar per Deliquium*, the Second the *Solution of Argent*, with *Aqua Fortis*. If the Waters be pure, as Rain, or distilled Water, or as some Fountains are, they admit of no Change when mixt with either of these; but if they are impure and heavy, they become milky with *Oyl of Tartar*, especially if they contain a chalky Earth, but, turbid and muddy, and of an ash Colour, inclining to a red (which is a Token of the Iron prevailing) with *Solution of Argent* infused.

VIII.

Besides, the various Effects which the Waters exhibit, clearly shew their Disposition and Nature. So the lighter and softer serve most aptly for the boiling of harder kind of Flesh, Pulse, &c. also to soften hard Bones, Teeth, and Sea Fish. Those who are used to wash or whiten Linnen find Waters very different in themselves, inasmuch as the softer Waters wash away mucous and greater Sordities than the harder Waters, which seldom lather. Chymists also observe in their Operations no small Difference, for Fountain, Heavy, and Hard Waters are not fit to adulcorate *Calx's*, or *Magisteries V. G. Calcis Auri, Auri fulminantis, Majisterii Luna, Terræ vitrioli dulcis*, because they leave behind a great many tender menstruous Parts in the Pores. In this Business, Rain, and the lightest Water, is best. Bakers observe their Meal sooner ferments with the lighter and softer Water than with the thicker or harder. The
Gar-

Gardener finds his Vegetables grow faster when sprinkled with light, subtle and spirituous Water, than when watered with the Fountain and harder kind.

IX.

Brewers also find great Alterations in Waters, the harder are made use of for the most durable Drinks, the softer for the most grateful and pleasing, but these last are very subject to sowre. *Joiners* and *Carpenters* know very well, that subtle Rain Water is unfit for their Use boyling to no firm Consistency or Conglutination, and that the Fountain and harder kind of Waters more happily suit their Purposes. Lastly, we find by domestick Experience, that Infusions of Herbs, as *Tea*, *Speed-well*, *Sage*, in Light, Rain Water, are far more pleasing than in Fountain, or Hard Water.

X.

But of all Waters, Rain Water is the most subtle, because it is of Nature's own distilling, for the Vapours of the Water being elevated from the Earth by the Sun's Heat, become more subtle by the Motion and Heat, and therefore more fit for Solutions, Elations, Increase of Vegetables, Infusions, whitening Cloaths, and likewise for the Physicians Use. But since the different Exhalations of Vegetables and Animals imbody themselves with Corruption, it happens that by a more free Access of Air, or a long standing in Wooden Vessels, they easily corrupt. But those Rains which usually fall in *March* are more durable, because they receive not so great a Quantity of various Effluvioms. That therefore the Physician may keep them for his Use, let him preserve them in earthen Vessels well covered, so that no Air can enter. Moreover, it is necessary to catch and keep them in Vessels, not as they
fall

fall from the House Tops, but in the open Field, by which means they will continue many Years good. Next to the Rain, the River Water takes place, some whereof are not much inferior in Purity and Goodness: No one questions but that the Rivers owe their Encrease and Decrease to the Rains. But because Springs are the Originals of Rivers in mountainous Places, and the Rains encrease them, but afterwards They, running over long Tracts of Land, imbibe various Particles from the Earth, it commonly happens, that the Rivers are from thence so much the more turbid and impure, the more Land they have flowed over. Besides, they assume a Mixture with many more Heterogeneous Parts from the Bottom, so that there arises not a little Difference betwixt Rain and River Water. This farther may be said, that Rivers, being always exposed to the free Air, and Action of the Sun, lets fly their subtler Parts into the Air, which supplies Matter for Clouds and Rain.

XI.

Moreover, the Rivers themselves seem to differ much in their Natures, those which run in a very rapid Course, and from the highest Craggs (whereto they often owe their Original) rowl into low Grounds, are far different from those whose Course is placid and serene, flowing on a leveller Soil. For those which flow with a rapid Stream generally carry a lighter and more subtle Water, less subject to Corruption, but unapt to multiply Fish, because its swift Flux hinders the Fishes from casting their Spawns in the Banks, where, by the Heat of the Sun, they may come to Perfection. But tho' such Rivers abound not in Fish, yet those they do breed are very favourable and wholesome. Hence *Rhenus* and *Rhodanus*, which arise in the highest Mountain of the *Rhatis*, are found to be far lighter than other Rivers. It is remarkable, that Ships sailing as soon as they enter *Rhenus* draw

draw more Water, because of its Lightness. Wherefore *Rhenus* and *Rhodanus's* Waters being weighed, come the nearest to Rain Water in Levity. And when these Rivers rowl swiftly, it happens that their Waters may be kept a considerable Time uncorrupted, and are the best of all Rivers for internal medicinal Use. *Jac. Sponius* published his Observations on *Rhodonus*, which are registered in the *Acta Erudit. An. 1683*, p. 519. where likewise you may read thus farther: The *Rhine* Water, kept in earthen Vessels and in Wine Cellars, so that it may settle some Weeks or Months before it is used, will be the purest and best, and may be kept not only many Months, but Years, yea, a whole Age, uncorrupted.

XII.

But Rivers which flow slowly, are far different, for they are very apt to encrease their Fish; as, for Example, *Marchia*, *Spreba*, *Havela*, *Viader*,
more

more especially when it runs in Corners and Windings, as the *Peisa* in *Hungary*; these abound with so great Plenty of Fish of all sorts, and Crabs especially, that *Europe's* Rivers can scarcely parallel them, (but this Account I suspect.) All these Rivers do not only run very slow, but over Lands fat and slimy, whence the Fish have Plenty of Nourishment. And this is the Reason why that limpid and crystalline Clearness is not regarded in these Rivers, where-with others shine, *viz. Albis, Rhenus, &c.* But, because they are of a softer Nature, they are more fit to wash Cloaths, at least with a small Quantity of Soap. And it is observed, that what Linnen is washed here seldom is so white as those which are washed in *Albis, Sala, and Mulda*. It is likewise very remarkable, that the Fish caught in *Albis* are far whiter than those, in *Spreba* or *Havela*, because these are not in so clear and limpid a Water as the other. From what, therefore, has been said may be gathered,
that

that all Rivers are not alike, nor so very fit for the Physicians Use. Nevertheless, those are approved which are clear, light, and the least subject to Putrefaction, and admit of no Change by the Infusion of *Oyl of Tartar per Deliquium*, or *Solution of Metals*. And of Rivers in general, those which run the swiftest are the most wholesome.

XIII.

Now we come to consider the Fountains, whose Natures and Virtues are found very different; and tho' these borrow their Beginnings and Increase from the Rains, yet according to the different Nature of the Soil, and earthy Particles they carry along with them, acquire a different Nature and Disposition; whence it is more difficult to find clear, pure, and light Fountains. The greatest Part of them leave a terrene Sediment by Evaporation or Distillation. There are some which admit no Change by the *Solution of Metals*, or *Alcaline Salts*. Some
partake

partake of a common Salt, as our *Hallenses*. Others a more subtle Vitrol, as our *Zerveftani*. The Liquor of *Salt of Tartar* infused, discovers the common Salt; wild Pomegranate-Flowers infused, discovers the Vitriol. There are some *Martial* Springs likewise arise from Places full of Iron Mines, whose Taste is very astringent, and Sediment yellow. It is therefore Art and Industry must chuse the wholesomest of the numerous Fountains Nature every where opens, which ought so to be accounted the best by their Lightness, Transparency, Purity, and Duration; besides, there is that Difference to be made, that some are soft, others hard. The soft are commonly those which have (*Scaturigo*) a mossy Substance sticking on the Bank-sides, and which flow on Sand and Clay. The harder are those which fall from high Places, and wash Mountains of an Ironish Nature, these seldom keep long sweet, but are apt to congeal, whereas the others will continue good, and very seldom

seldom freeze. They are both to be accounted wholesome, if the Physician knows prudently how to apply them to the different Nature of Diseases and Subjects.

XIV.

And now we have shewn what Waters are wholesome, and fittest for the Physicians Use, and over and over have told how they are to be known and examined. It is now Time for us to come nearer the Point, and shew how famous and universal a Virtue they contain in Medicine. But first we assert that pure and light Waters are the most suitable to human Nature, which in itself is very different, for if the Circulation of the Fluids, thro' all the various Tubes and minutest Vessels is the Foundation whereon the Preservation of Man's Body depends, it follows, that what preserves the Blood Fluid is the most apt for Life. The Fluids of our Bodies, both those which serve for Nutrition

E

and

and all other Functions (and whereof there are also solid Parts composed) consist of Solids and Fluids. That there are Solids in Blood, the drying of it plainly proves; and likewise, that these are very different, as saltish, sulphurious, terrene, and mucid, is very evident from the Inflammability of it, as well as in Distillation, and, other chymical Experiments do plainly testify. In some few Waters there are Heterogeneous Parts, and if Heat, Rest, Moisture, the Causes of all Corruptions, be admitted, are very apt to putrify; but to hinder this, and the Body's being vitiated, it is necessary not to let them stagnate, otherwise they will be very apt to corrupt. It is therefore needful that these solid, subtler, sulphurious, terrene Particles not only be put into a continued intestine Motion, but also that they may freely circulate thro' the little Tubes and Canals, that by this Motion the solid Parts of the Blood may be divided into the smallest Globuli by the mutual Attrition and Conquassation of the Blood and fibrous

brous Parts. For which end, a more free Admission of the Aërio-Ætherial-Elastic Fluid and limpid Water is more necessary, whence it happens, that if we examine the Proportion of the Fluids and Solids in Blood drawn from a sound Man, we find the Liquids at least to be twice as much as the dry Element. For generally Mr. *President* observed in twelve Ounces of Blood there are eight liquid and four solid. Moreover, it is manifest the Blood contains a larger Quantity of subtler Air and Æther from its Ebullition, transcending the Cylinder *in Vacuo*, tho' at first it reached but its middle. There is nothing therefore more wholesome, or more convenient for Life, or more necessary to defend it than *Water*, because it is most suitable to human Nature, and without it the Body can neither last, nor Life be sufficiently prolonged.

XV.

Besides, there is no Remedy more easily nor readily gotten for the Preservation of Health and Prevention of Diseases. He seems to have rightly consider'd Health's formal Reason, who placed it in the lawful Exercise of all the Functions of the Body; but if we search after its Cause, we find it no other than an equal and free Progression of the Blood thro' all the Tubes, even the least, which are in the Emunctories. For by this means it happens, that what is good and fit for Nutrition remains, and is secreted in the Pores, but what is unuseful and unfit for Nature, is cast out of the Body. For what deserves our greatest Attention is, we do not think that the Excretions are so directly, simply, and absolutely necessary to Life, as indirectly to Health, and the Exercise of the Functions duly to be perform'd; so that the Health and Life too, may be endangered, and the

the Excretions be in no wise faulty. For who does not know, that the Functions of the Body, according to Nature, are wonderfully disturbed and endangered by a troubled Mind, great Grief, or Erosion and Inflammation by Poison? And also, in grievous chronick Passions the Excretions are so much to be looked unto as the Obstructions of the Glands, Indurations, Corruptions, Exulcerations of the Bowels, and Extravasations of Humours, as, in acute Diseases, inflammatory Stagnations of the Blood. It is therefore a free and equal Motion of the Blood and Humours that maintains Health, promotes Excretions, procures proper Nourishment to the solid Parts, gives the sensory Nerves and Fibres that subtle Fluid whereby they are moved and are sensible. But the equal and free Motion failing, which happens either thro' the Abundance, Grossness, or Impulse of the Humours, or the Elater or Tone of the moving Fibres being weakned, presently a ready way is laid open, especially for lingering Dis-

Diseases. For from the same Causes both the Stagnations of the Humours in the greater Vessels, and Obstructions in the lesser, and in the Emunctories, Indurations in the Glandules follow, and these presently are succeeded with the greatest Impurities, (the Causes of Diseases) as Cramps, and Putrefactions, the greatest Enemies to Health and Life. Thus, and after this Manner, Diseases are generated in human Bodies.

XVI.

Who then knows not that a due Tone and Fluidity of the Blood and Humours is most necessary for the Blood's free and equal Circulation. For so the Vessels are open, Obstructions hindered, Excretions duly performed, Stagnations of the Humours and their Impurities, the Causes of all Distempers, are prevented. But whether there is in Nature a fitter or more noble Remedy for the Blood's Fluidity than pure Water, I leave the wisest Physicians to judge.

judge. For pure and subtle Waters divide the solid and gross Parts of the Humours, dissolves the unprofitable, imbibes all Particles, earthy, saline or sulphurious, and carries them thro' proper Emunctories; from whence it happens, that many Diseases arise from the Defect of fit Moisture and due Motion.

XVII.

From hence, therefore, is the Reason why those Persons who drink Water, so it be pure and light, are more sound, and longer liv'd, have better Appetites, and are generally fatter, as *Fonsæca, de Sanit. tuenda*, p. 51. hath observed. Water is the properest Liquor for the Solution of the Aliments, the Extraction of the chylous Particles, and to insinuate the nutritious Juices into the inward Pores of the Parts. Besides, Water very quickly washes off the viscid and tenacious Mucus, which stick on the glandulous Coats of the Stomach, Duodenum, and other Bowels;
that

that the dissolving Juices of the Appetite and Digestion may become more freely mixed with the Food. Neither does Water, as is the common Opinion, disagree with seasonable or ripe Fruits. For the greatest Part of the *Lusitanians*, *Spaniards*, and *Gauls* drink Water, and nevertheless eat these Fruits in Summer plentifully without Damage. Moreover, Water Drinkers have far stronger and whiter Teeth, because Corruption and Rottenness of the Teeth is the Off-spring of the Scurvy, which the drinking pure Water hinders, as it purges the Blood of all its Filth, which is carried thro' the open Emunctories of its own accord. Water Drinkers also are more chearful and brisk in all Actions, both of Mind and Body, than the Ale Drinkers; for brewed fermented Drinks generally make the Juices clammy and heavy, unapt to pass thro' the little Pores of the Brain and Nerves, whence comes that Languor of Body, and heavy Disposition of the Limbs to Sense and Motion. The more, therefore, simple Water drinking is congruous to Health
and

and Life, so much the more may we wonder that our Country People so strangely abhor this wholesome Liquor, which Foreigners greatly admire. Brewed Liquors (especially those which are too thick and nourishing) prepare the Way for many grievous Distempers in the Northern Climate, especially if Vinous Spirits and Drams be plentifully used, it would be much the wiser Way for us to accustom ourselves to the drinking good Water, either alone or mixt with Wine.

XVIII.

And now since we have shewn that Water is the best Preservative against Diseases, it now follows, that we examine how useful it is in Curing. But let it first be observed, that all Diseases are divided by Physicians into Acute and Chronic; by Acute Diseases, Fevers are the Principal; these are nothing else than intense, vehement, and swift Motions in the solid Parts, Fibres, and Fluids,

F which

which either end in conquering the morbid Cause, whence it is termed Health; or destroying the Machine, when a woeful Event ensues, or in corrupting some Parts of the Machine, whence there is a Disposition for other Diseases. Wherefore Nature, who is very often the best Physician, sometimes also happens to be the Author of Diseases and Death, as she is destitute of all Counsel and Knowledge how to act. For Nature, who is the wisest Mechanism of the Body, according to the great Wisdom of the Allwise Artificer, acting by Powers and Forces innate, mechanick, and necessary, with a Soul endowed with Reason, by no means ought to be confounded. And so at times, when ordinarily such Intentions of Motion, which have their Terms, cannot be entirely stopt by Art, the Physician can do nothing else than apply Matter fit for Motion: For that Intention of Motion is joined with great Heat, which vehemently dissipates the innate Moisture, which is the best Friend to Life. What then
must

must be done? For neither that Motion, increased by Fevers, can expel what is offensive without a sufficient Liquid, nor open the Obstructions, or discuss the inflammatory Stays of the Humours. Therefore, in those sort of Fevers there is nothing better than warm Water drank plentifully, it is the only Comfort, and best Physick. For which Reason *Hypocrates*, and other Physicians, recommend *Physanes* in the Cure of *Fevers*. And with this alone, with Rest and temperate Heat, oftentimes the most grievous Fevers are cured, without any other Physick or Physician; for he can do little with his Art, unless by letting Blood, when it offends in its Quantity, or with an Emetick, if the Seat of the Disease be in the first Region, or a Diaphoretick to carry off quickly the subtle Poison; unless at other times cooling, moistening, anodyne Draughts are taken inwardly. But caution is to be used, lest the Drink be too cold, especially about the Crisis, and when there is Danger of an Inflammation of the pri-

mary Passages, neither let it be used in the cold Fit, when the external Parts are constringed, but wait till you see a fit Time for sweating, and then you may administer a plentiful Draught, to be repeated *pro re Nata*.

XIX.

As for Chronick Diseases, they generally arise from the Obstructions of the Bowels and Glandules, abundance of impure Humours, and their Stagnation in the larger Vessels, all which are to be removed Reason and Experience tells, and there is no better Remedy for the Performance hereof than pure Water, What noble Effects wholesome Mineral Waters, both hot and cold, perform in these Diseases, are very manifest. But the Operations are chiefly owing to the Plenty of Water, and the Fluidity it gives the Humours; for in vain may the *Mineral Spirit*, *Alcaline*, and *Volatile* Salts be applied and given in those Diseases, if Plenty of Water be wanting. For Fountain Waters,
if

if they are but pure and light, (whatever Mineral Ingredients are wanting,) can help mightily to drive away lingering Distempers, and indeed such Fountains are almost every where to be met with, and are the most wholesome, the Cause whereof, if we rightly consider, is to be assigned to the Goodness of the Water, which is that, which some simple Physicians do not understand, but they assign to such Fountains I know not what Ingredients, whether fetched from Heaven or Earth. In this Number, the Waters in the Principality of *Hannoberg* and *Schlesingen* ought to be reckoned, which are pure and subtle, filled with much Air and Æther, these help most chronick Distempers, especially the Stone, Gout, Rheumatism, Scurvy, languid Limbs, &c. making the Humours fluid, are very useful in all Defects of the Menses and Hæmorrhoids. The Waters of *Freyenwalden* in *Marchia* have very great Virtue, tho' they merit not to be called a *Spaw*, as being little imbrued with the Mineral Spirit; but they are
 Light,

Light, Martial, somewhat Hard, and very Cold, their Springs lying very deep. These happily correct the hot Intemperance of the Humours, and all their salt, sharp Impurities, whence, in like manner, they are very good for the Stone, Gouts, Scabs, Palsies, and Scurvy. On the Borders of *Thuringia*, the Waters of *Bebrana* shew their Uses and Virtues, which are not only the purest, but extremely light, the most Rain-like, Clear, and Martial, these not only purge by Stool, but by Urine also, and by drawing away the heavy, bilious, sulphurous Impurity out of the Body, cool the internal Heat of the Parts, and also cure Cachectick Persons, and all Distempers of the Reins and Bladder. A few Years ago there was a wholesome Fountain in the *Hyrcinian* Wood near *Ostreda*, which, in our Judgment, had no Mineral Ingredients, but was very pure and subtle, and not so hard; these were exceeding good for inveterate Head-Achs, Languor of the Limbs, Scurvy, Hypochondriack-Pains,

Bilious

Bilious Distempers, and inflamed Liver. What may we say of our *Hallenses*, which are Martial Waters, flowing over a clayish, red Soil, whence they carry along with them that Martial Disposition, however are wisely used in hot Scurvies, so called from the bilious Impurity of the Humours, and also in the Gout, Scurvy, Languor of the Body. Two Miles from our City there is a Fountain, nigh *Labegenus*, which flows out of the Rocks, and its Water is very subtle, almost incorruptible, with this the *Lebegenches* brew, which ferments of itself, and being handsomely purged, there is scarce a better Remedy to be found for provoking Urine, whence it may justly be accounted the true Physick for Nephritick, and bilious hot Natures.

XX.

There are also wholesome Baths in some Places free from all Mineral Spirit, whose Waters are very subtle and light : As the *Piperinae*, in the *Rhatian* Mountains, whose Virtues have been experienced and extolled in the Cure of tartarions, scorbutick, arthritick Diseases, the Stone and Contractures ; they strongly provoke Urine ; they are wont to drink three Pints every Morning ; at four or five in the Afternoon they go into the Bath, which expels the Pustules successfully. These Fountains (which is very remarkable) begin to spring in *May*, and grow dry in *September* ; and thus every Year they owe their Original to the Snows, which lie on the *Alps* : These, dissolved by the Heat of the Sun, run in hot, subterraneous Passages, and there being warmed, run into the Valley, and give over when the Sun's Heat is removed. They have neither Salt, Sulphur, nor Mineral Spirit, nor are of any

any Martial Nature, as we find by the Sediment; neither do they admit any Change by Acids, Alcalines, or Solution of Silver, but are light, subtle Waters, like Rain. There is a noted Bath, likewise in *Hafia*, which takes its Name from the Serpents *Schlangen-Bad*, its Water is intirely pure, soft, and light, and is very good for refreshing languid Limbs, softening Contractures, and beautifying the Skin. In *Italy* there are a great many wholesome Fountains, as *Pisana*, *Tettutiana*, *Noceriana*, which almost cure all Distempers by their Subtlety, and others Martial, whose Use we find mentioned in *Sylvatius's* Consultations.

XXI.

Since, therefore, we have sufficiently proved that the Wholesomness of many Fountains depends on the Goodness of Water alone, one may very readily imagine other Waters, when they can be had pure and simple, have the like

G

Effects

Effects with these: Experience testifies it. So *Ridlinus* relates, *Anno* 1637, in *May*, *Lin. Med.* 17. that a Person melancholly mad, had used to drink Rain Water for two full Years, and *Lin.* 15. says, Rain Water, like the Spaws, first by little and little, and in some Days increasing to the highest Dose, and again descending, is drank to great Advantage; by the Use whereof cachectick and consumptive Persons are cured. *Riverius* also in his Works, *lib.* 4. *cap.* 24. relates, that by a repeated Use of Water only, the Menses, when they have been stopt, have been caused to flow, more naturally than by any other Provocatives. Of the Ancients, *Celsus*, *lib.* 1. *cap.* 5. highly commends the Use of cold Water, saying, that the Use of it helps those who are weak-headed, and also those who are troubled with continual Dimness, Heaviness, Distillations, &c. I wonder, says *Ballonius*, *lib.* 1. *Epidem.* p. 106. why we do not use Water and Plantain Juice for sore Eyes and Inflammations, in
which

which it is Wisdom to moisten and refrigerate. *Sylvatius, cap. 1. Obs. 2.* commends them highly for the Redness of the Face, the Rose-Drop, Scabs, and hot Disposition of the Liver, secondly, they are good for the Gout; wherefore *Martianus* writes to *Hippocrates*, that Cardinal *Berner* was perfectly cured of the Gout by drinking cold Water only. And *Rondeletius* in his Praxis, p. 611. I have oftentimes cured the Gout by the drinking cold Water, but this more happily succeeds in bilious Constitutions. But since there are some Subjects of a colder Nature, which, either thro' the Weakness of the Nerves, and Narrowness of the Passages, cannot bear cold Drinks, it is then the better way to warm them, but with that Care, that the Vessels being well covered, the Subtlety may not exhale when put into the hot Water. Such Waters drank fasting, says *Avicenna, lib. 1. sect. 2. cap. 16. p. 102.* wash the Stomach, draw up the Womb, are good for all

Pains and Flatus's of the Colon, Pains of the Head, sore Eyes, Distillations, and such like Defects, whereby the Continuity is broken in the Breast, they stimulate the Menfes, provoke Urine, and ease Pain. What famous Effects, both in the Preservation from, and Mitigation or Curing of Diseases, the drinking hot Waters performs is well known to those who know the Virtues of the Herb *Thea* (Tea) infused. But whosoever attributes these Effects to the exotick Herb, are very much in the wrong; there is a good Plenty of hot Water in which it is infused, which is the principal Cause. But the astringent Herb, by its Virtue, strengthens the Fibres of the Parts, which have lost their 'Tone; but because in most Diseases there is a stronger Constriction of the Fibres, our experienced Physicians are very cautious how they use this Herb. But, to speak Truth, we have in our Country Herbs which are better than *Thea* (Tea.) We ought also to chuse and make Use of

of them according to the different Nature of Diseases, and their various Causes. As, in the Distempers of the Breast, *Speed-well*; for the Nerves, *Betony*; for the Womb, *Baum* and *Penny-Royal*; in ulcered Kidneys, *Ground-Ivy*; for the Scurvy, *Trefoil*, infused in very pure Water and drank hot, are very good. Moreover, in Hypochondriack Pains, and extravagant Hæmorrhages, the Tops of *Millefoil*, infused in hot Water, are very useful. For the Cholick, common *Camomile*; for the Scurvy, *Fumary*; for expelling the Stone, *Parsely*; for a moist Asthma, Garden *Crowfoot*, instead of the Herb *Thea*, may be infused with Fruits. But let this be a constant Rule for the better making your Infusions of Herbs, let not the Water boyl long, but just till it bubbles strongly, lest the subtle Parts exhale.

XXII.

It still remains, that I shew that Water is an universal Remedy, not only suitable to all Natures, but to all Symptoms of Diseases. For First, In every Temperature of Body, Water drinking is profitable, in sanguine Constitutions, and where the Habit of the Body is loose, and full of very small Vessels, it makes the Circulation of the Blood and Humours quick and easy, which otherwise being apt to slacken, would cause Stagnations in the Vessels. In cholerick Persons, where the Motion of the Humours is more intense, Water moderates the violent Heat, because a more free Transpiration being made, it drives out the hot, sulphurous Parts thro' the more open Pores and Tubes. But, by the diluting the thick Blood, and Toughness of the Humours, it is extremely good for melancholy and phlegmatick Constitutions. It

It suits every Age. Infants, by reason of the Viscosity and Acrimony of the Milk, often fall into grievous Distempers, when besides Absorbents, Watry Diluents taken hot are very comfortable. In Childhood, thro' the Abundance and Thickness of the nutritious Juice, and Grossness of the Humours, various Diseases happen, *viz.* Catarrhs, Deformities of the Skin, for which a diluent Infusion is very good. The Reason of these Diseases is the same, which arise in Manhood or Old-age, in all which it is very good to drink Water: For Manhood is very prone to Inflammations and Fevers, but Old-age is only exposed to those Ills which arise from (*infarctu*) and Obstructions, for which, how to find any thing more suitable than the drinking good Water, either hot or cold, indeed I know not. What grievous Ills Women thro' a Defect of the Menfes, and Men thro' a vitiated Flux of the Emorrhoids endure, our daily Practice shews us; but to preserve

preserve these in their just, orderly Course. I have found by Experience Diluents are the best.

XXIII.

Every one knows that a Plethora is a fruitful Parent of Diseases, but for the Hindrance of it, there is nothing more convenient than hot Water and Infusions of Herbs; as it dissolves the glutinous Substance of the Humours, it hinders the copious Increase of Blood, and its growing Gumous. Neither is Water drinking less able to take away Cacochymy of the Humours, because it very readily washes, and carries away the impure, saline, and recrementitious Parts thro, convenient Emunctories. Besides, the drinking of Water keeps all Evacuatories open, and wonderfully promotes the Excretion of useless Sordities; it strengthens the Womb, opens the Urinary Vessels, and by washing and wringing them, hinders the Stone, wonderfully

fully helps Transpiration, of all Evacu-
 ations the most wholesome, and if
 the Stomach is filled with the (*Saburra*)
 of vicious Humours, a large Draught
 of warm Water often readily dischar-
 ges it. Water, lastly, is the best Ve-
 hicle of all Medicaments, Anti-Scorbu-
 ticks, and those Remedies which are
 adapted to purge the Blood, if they
 be Vegetables are little significant in
 correcting the Vices of the Humours,
 unless by the Administration of Water.
 Their Virtue in Decoctions or Infusions
 penetrates into the Blood, and inmost
 Recesses of the Parts. In short, where-
 soever or in whatsoever Diseases there
 is aught to be altered, evacuated, open-
 ed, or resolved, the best and surest Reme-
 dy, WATER, is always ready. Neither
 does the Nourishment of the Body be well
 made or dispensed without Water, because
 it is the best Vehicle of the nutritious Juice,
 and carries it into the smallest Pores of
 the Parts.

XXIV.

Lastly, it is necessary here to advise those who cannot get pure Water to gather Rain, or to make use of the River Water, and if these cannot be had, the impurer Waters by Distillations are to be refined, or by boyling them with burnt Hart's-Horn to be corrected. Certainly it is a great Gift of Nature, our kind Parent, in any City or Country, that wholesome Fountains can be had, more noble than the costliest Physick; and it behoves a wise Physician strictly to examine the Waters of those Places he makes use of, that afterwards with Success he may use them both for the Preservation from, and Curing of Diseases, wherewith he will assuredly effect more than with all the magnificent and highly applauded Chymical-Medicines, and other Arcanums.

F I N I S.



e
r
e
e
t
t
s,
e
n
a
-
t
n
g
y
t
i-